

REMARKS

Claims 1-26 remain in this application. Claims 21-25 have been amended. Claims 1-26 have been rejected.

Reconsideration of this application in light of the following remarks is requested.

Rejections under 35 U.S.C. § 101

Claims 20-25 were rejected under 35 U.S.C. § 101 for allegedly being directed to non-statutory subject matter. Claims 20-25 have been amended to specify that the computer program product is tangibly embodied on a computer-readable medium. Accordingly, withdrawal of the rejections of claims 20-25 under 35 U.S.C. §101 is respectfully requested.

Rejection[s] Under 35 U.S.C. §103

Claim 1

Claim 1 recites the following:

1. A method of providing communication between a provider endpoint at a provider location and a user endpoint at a user location behind a data firewall, the method comprising the steps of:

receiving a connection signal from a soft switch at the provider location, wherein a data portion of the connection signal includes a private connection address associated with the provider endpoint;

modifying the data portion of the connection signal by substituting a public connection address for the private connection address; and

sending the modified connection signal to the user endpoint.

Claim 1 was rejected under 35 U.S.C. §103 as being obviated by U.S. Patent Application No. 2004/0210674 to Gbadegesin (hereinafter “Gbadegesin”) in view of U.S. Patent No. 6,822,957 to Schuster et al. (hereinafter “Schuster”). Applicant traverses this rejection on the grounds that these references are defective in establishing a prima facie case of obviousness with respect to claim 1.

As the PTO recognizes in MPEP §2142:

... The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness...

It is submitted that, in the present case, the examiner has not factually supported a prima facie case of obviousness for the following, mutually exclusive, reasons.

1. Even When Combined, the References Do Not Teach the Claimed Subject Matter

The Gbadegesin and Schuster references cannot be applied to reject claim 1 under 35 U.S.C. §103 which provides that:

A patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains ... (Emphasis added)

Thus, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, since neither Gbadegesin and Schuster teaches “receiving a connection signal from a soft switch at the provider location, wherein a data portion of the connection signal includes a private connection address associated with the provider endpoint,” “modifying the data portion of the connection signal by substituting a public connection address for the private connection address,” or “sending the modified connection signal to the user endpoint” as described in the subject application and claimed in claim 1, it is impossible to render the subject matter of claim 1 as a whole obvious, and the explicit terms of the statute cannot be met.

With regard to the claim 1 limitation of “receiving a connection signal from a soft switch at the provider location, wherein a data portion of the connection signal includes a private connection address associated with the provider endpoint,” the Office Action cites the following passages of Gbadegesin as allegedly disclosing such a method step:

This gateway computer 66 runs a program called a network address translator (NAT) that has both a private IP address 62 and a public IP address 68. *As computers on the private network attempt to establish sessions with a server on a public network (or another private network), the NAT changes the source address 70 of the message packets 72 from the private address of the client computer to its public IP address.*

Gbadegesin, Paragraph 0004, Lines 1-7 (*emphasis added*).

In operational terms as illustrated in FIG. 7, a client process C₁ establishes a first session 94 with the proxy 88 requesting access to a public server S₁. If the proxy agrees, a second...

Gbadegesin, Paragraph 0008, Lines 10-12.

Applicants respectfully disagree. Gbadegesin neither describes or suggests “receiving a connection signal from a *soft switch*” as described in the subject application and explicitly recited in claim 1. Rather, Gbadegesin only describes a network address translator (NAT) that changes a source address of packets received *from a client computer* from an address of the client computer to the public address of the NAT and thus fails to describe or suggest “receiving a connection signal from a soft switch.” For at least this reason, Gbadegesin and Shuster are insufficient to describe or suggest a method of “receiving a connection signal *from a soft switch* at the provider location, wherein a data portion of the connection signal includes a private connection address associated with the provider endpoint” and thus are insufficient to provide a prima facie case of obviousness with regard to the claim 1 limitations. Accordingly, Gbadegesin and Shuster fail to obviate claim 1.

Further with regard to the claim 1 limitation of “receiving a connection signal from a soft switch at the provider location, wherein a data portion of the connection signal includes a private connection address associated with the provider endpoint,” no description or suggest is provided by Gbadegesin of “a data portion of the connection signal” that “includes a private connection address.” Rather, Gbadegesin only describes a packet having a private source address of a client computer and a NAT that changes the private source address of the client to a public address of the NAT. Moreover, Gbadegesin states the following with regard to the address translation:

[0051] Once the proxy 104 has determined that a dynamic redirect is appropriate and such has been commanded of the gNAT 106, it establishes a dynamic redirect mapping 118. All network data that is received from the network for the proper proxy's session (as determined by the gNAT 106 in accordance with its commanded dynamic redirect 118) is automatically translated by the gNAT 106 *so that its transport-layer address matches the*

proxy's other session. This data is then transmitted to the network for the proxy's other session. Graphically, *this dynamic redirection at the transport layer* is illustrated by line 120.

Gbadegesin, Paragraph 0051, Lines 1-11 (*Emphasis added*).

The proxy accomplishes this by commanding a dynamic redirect to be mapped in the gNAT. When the server S_1 responds (illustrated by line 137), the message packet is seen by the gNAT, which verifies that it has a proxy commanded redirect for that message, and is *redirected at the transport-layer* to the client C_1 as indicated by line 139.

Gbadegesin, Paragraph 0055, Lines 6-12 (*Emphasis added*).

[0057] As described above, the intelligent transparent proxy may use the NAT API 108 (see FIG. 9) to command a dynamic redirect in the gNAT 106 so that when messages are received from server S_2 they may be properly routed to the correct client (C_1). This dynamic redirection may be commanded to take place *at the transport-layer* (kernel-mode) to speed performance, or may require that the messages be forwarded up to the proxy for processing prior to being delivered to the client. Indeed, the proxy may decide not to forward the message at all (e.g. based on site blocking or parental control programming within the proxy). Since the gNAT allows dynamic address translation of both source and destination IP addresses, the proxy can command various translations that may be made *at the transport-layer*, establishing any number of apparent sessions as desired.

Gbadegesin, Paragraph 0057, Lines 1-15 (*Emphasis added*).

Thus, Gbadegesin is clear that the address translations described thereby are performed *at the transport layer*, i.e., the address translations are performed by changing addresses in an address portion rather than a data portion of the packets. No description or suggestion is provided by Gbadegesin for receiving a connection signal having “a data portion of the connection signal” that includes “a private connection address.” For at least this reason, Gbadegesin and Shuster are insufficient to describe or suggest a method of “receiving a connection signal from a soft switch at the provider location, wherein a data portion of the connection signal includes a private connection address associated with the provider endpoint” and thus are insufficient to provide a prima facie case of obviousness with regard to the claim 1 limitations. Accordingly, Gbadegesin and Shuster fail to obviate claim 1.

With regard to the claim 1 limitation of “modifying the data portion of the connection signal by substituting a public connection address for the private connection address,” the Office Action cites the following passages of Gbadegesin as allegedly disclosing such a method step:

8. A method of session payload editing of application-layer data of message packets communicated between a client and a server through a gateway, comprising the steps of:
commanding a dynamic port-redirect within the gateway from a first port to a second port, the second port being bound to a session payload editing application;
receiving a message packet having application-layer data contained therein directed to the first port;
performing a kernel-mode dynamic address translation in accordance with the commanded dynamic port-redirect to direct the message packet to the session payload editing application;
editing the application-layer data of the message packet; and
forwarding the message packet with the edited application-layer data to the server.

Gbadegesin, Claim 8.

As may be seen from the architectural diagram of FIG. 9, the system of the instant invention comprises a kernel-mode translation module 106 that processes packets received from the network and modifies those packets in real-time in accordance with dynamic redirect instructions...

Gbadegesin, Paragraph 0038, Lines 1-5.

Applicants respectfully disagree. Gbadegesin describes a mechanism for kernel-mode translation that modifies packets according to dynamic redirect instructions. With regard to the dynamic redirect instructions of the kernel-mode translation, Gbadegesin recites the following:

[0044] Using the API routines provided by the NAT API 108, a process might act as a transparent proxy for HTTP sessions, for example, by starting up, binding to a local socket, and initializing the transparent proxy API library on the network gateway machine. The *transparent proxy 104 then retrieves the address of its local socket* and invokes the transparent proxy API 108 to create a 'dynamic port-redirect' for TCP port number 80 (which is the HTTP port) *using its local socket's address*. While this exemplary operation is described for an HTTP port, one skilled in the art will recognize that the dynamic port-redirect may be accomplished for any port number.

[0045] *The port-redirect command tells the API library 108 to instruct the network gateway that all sessions destined for TCP port number 80 must be directed instead to the transparent proxy's socket*. As a client starts an Internet browser, it sends a connection-request to TCP port number 80 of a server on the Internet through the network gateway. The network gateway determines that the client's *connection-request matches the transparent proxy's commanded redirect*, and it *triggers the kernel-mode network address translation module 106*.

[0046] The kernel-mode translation module 106 *changes the destination address of the client's connection-request to be the local address of the transparent proxy's socket...*

Gbadegesin, Paragraphs 0044-0046 (in part) (*emphasis added*).

Thus, the dynamic redirect instructions disclosed by Gbadegesin do not modify a *data portion* of a connection signal by substituting a public connection address for the private connection address. Rather, Gbadegesin only describes changing a destination address to a proxy socket. Moreover, Gbadegesin neither describes, suggests, or otherwise alludes to changing an address in a *data portion* of a connection signal. Rather, Gbadegesin only describes changing a destination address in an address portion of a connection-request. For at least this reason, Gbadegesin and Shuster are insufficient to describe or suggest a method of “modifying the data portion of the connection signal by substituting a public connection address for the private connection address” and thus are insufficient to provide a prima facie case of obviousness with regard to the claim 1 limitations. Accordingly, Gbadegesin and Shuster fail to obviate claim 1.

With regard to the claim 1 limitation of “sending the modified connection signal to the user endpoint,” the Office Action cites the following passages of Gbadegesin as allegedly disclosing such a method step:

The proxy accomplishes this by commanding a dynamic redirect to be mapped in the gNAT. When the server S_1 responds (illustrated by line 137), the message packet is seen by the gNAT, which verifies that it has a proxy commanded redirect for that message, and is redirected at the transport-layer to the client C_1 as indicated by line 139.

Gbadegesin, Paragraph 0055, Lines 6-12

Applicants respectfully disagree. As noted above, Gbadegesin fails to describe or suggest modifying the data portion of the connection signal by substituting a public connection address for the private connection address. Consequently, Gbadegesin also fails to describe or suggest sending the “modified connection signal to the user endpoint” as Gbadegesin does not describe or suggest a modified connection signal having the data portion of the connection signal having a public connection address substituted for a private connection address. For at least this reason, Gbadegesin and Shuster are insufficient to describe or suggest a method of “sending the modified connection signal to the user endpoint” and thus are insufficient to provide a prima facie case of obviousness with regard to the claim 1 limitations. Accordingly, Gbadegesin and Shuster fail to obviate claim 1.

Thus, for this mutually exclusive reason, the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

2. The recognition of a problem, or of the source of the problem, is not obvious even though the solution to the problem may be obvious

In the present case, it is apparent from a reading of the Gbadegesin and Shuster references that neither recognized the problem of providing voice communication between a provider endpoint at a provider location and a user endpoint at a user location where both the provider endpoint and the user endpoint are located behind conventional firewalls. Thus, this is a classic example of a solution to a problem being obvious only after recognition of the problem by the applicant and is part of the "subject matter as a whole" language of 35 USC §103 which should always be considered in determining the obviousness of an invention under this statute.

Thus, for this independent reason, the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

3. The Combination of References is Improper [This argument should be the last argument presented and is applicable in every situation]

Assuming, *arguendo*, that none of the above arguments for non-obviousness apply (which is clearly not the case based on the above), there is still another, mutually exclusive, and compelling reason why the Gbadegesin and Shuster references cannot be applied to reject claim 1 under 35 U.S.C. §103.

§2142 of the MPEP also provides:

...the examiner must step backward in time and into the shoes worn by the hypothetical 'person of ordinary skill in the art' when the invention was unknown and just before it was made.....The examiner must put aside knowledge of the applicant's disclosure, refrain from using hindsight, and consider the subject matter claimed 'as a whole'.

Here, neither Gbadegesin and Shuster teaches, or even suggests, the desirability of the combination since neither teaches “receiving a connection signal from a soft switch at the provider location, wherein a data portion of the connection signal includes a private connection address associated with the provider endpoint,” “modifying the data portion of the connection signal by substituting a public connection address for the private connection address,” or “sending the modified connection signal to the user endpoint” as specified above and as claimed in claim 1.

Thus, it is clear that neither reference provides any incentive or motivation supporting the desirability of the combination. Therefore, there is simply no basis in the art for combining the references to support a 35 U.S.C. §103 rejection.

In this context, the MPEP further provides at §2143.01:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.

In the above context, the courts have repeatedly held that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination.

In the present case it is clear that the examiner’s combination arises solely from hindsight based on the invention without any showing, suggestion, incentive or motivation in either reference for the combination as applied to claim 1. Therefore, for this mutually exclusive reason, the examiner’s burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

Claims 8, 20, and 26 recite similar features as claim 1 and were rejected for the same rationale. Therefore, the same distinctions between Gbadegesin and Shuster and the claimed invention in claim 1 apply for these claims. For the reasons described above, Gbadegesin and Shuster do not include all elements of independent claims 1, 8, 20, and 26 and hence fail to obviate the present invention as recited in claims 1, 8, 20, and 26.

Claim 14

Claim 14 recites the following:

14. A voice firewall comprising:
a command input port;
a command output port;
a processor electrically connected to the command input port and the command output port, wherein the processor is configured to receive a connection signal through the command input port, wherein the processor is further configured to substitute a public connection address for a private connection address embedded within a data portion of the connection signal; and
a voice communication port electrically connected to the processor, wherein the voice communication port is associated with the private connection address on a private side of the voice firewall and is associated with the public connection address on a public side of the voice firewall.

Claim 14 was rejected under 35 U.S.C. §103 as being obviated by Gbadegesin in view of Schuster. Applicant traverses this rejection on the grounds that these references are defective in establishing a prima facie case of obviousness with respect to claim 1.

1. Even When Combined, the References Do Not Teach the Claimed Subject Matter

Since neither Gbadegesin and Schuster teaches a processor configured to “substitute a public connection address for a private connection address embedded within a data portion of the connection signal” or a voice communication port that “is associated with” a “private connection address on a private side of the voice firewall and is associated with the public connection address on a public side of the voice firewall” as described in the subject application and claimed in claim 14, it is impossible to render the subject matter of claim 14 as a whole obvious, and the explicit terms of the statute cannot be met.

With regard to the claim 14 limitation of a voice firewall processor “configured to substitute a public connection address for a private connection address embedded within a data portion of the connection signal,” the Office Action cites the following passages of Gbadegesin as allegedly disclosing such a voice firewall:

8. A method of session payload editing of application-layer data of message packets communicated between a client and a server through a gateway, comprising the steps of:
commanding a dynamic port-redirect within the gateway from a first port to a second port, the second port being bound to a session payload editing application;
receiving a message packet having application-layer data contained therein directed to the first port;
performing a kernel-mode dynamic address translation in accordance with the commanded dynamic port-redirect to direct the message packet to the session payload editing application;
editing the application-layer data of the message packet; and
forwarding the message packet with the edited application-layer data to the server.

Gbadegesin, Claim 8.

As may be seen from the architectural diagram of FIG. 9, the system of the instant invention comprises a kernel-mode translation module 106 that processes packets received from the network and modifies those packets in real-time in accordance with dynamic redirect instructions...

Gbadegesin, Paragraph 0038, Lines 1-5.

Applicants respectfully disagree. Gbadegesin describes a mechanism for kernel-mode translation that modifies packets according to dynamic redirect instructions. As noted above with regard to the rejection to claim 1, the dynamic redirect instructions of the kernel-mode translation described by Gbadegesin do not provide a method of “modifying *the data portion* of the connection signal by substituting a public connection address for the private connection address.” Rather, Gbadegesin only describes transport layer address translation including changing a destination address to a proxy socket. Moreover, Gbadegesin neither describes or suggests changing an address in a *data portion* of a connection signal. Rather, Gbadegesin only describes changing a destination address, i.e., an address in an address portion of a connection-request.

For at least this reason, Gbadegesin and Shuster are insufficient to describe or suggest a voice firewall comprising a processor “configured to substitute a public connection address for a private connection address embedded within a data portion of the connection signal” and thus are insufficient to provide a prima facie case of obviousness with regard to the claim 14 limitations. Accordingly, Gbadegesin and Shuster fail to obviate claim 14.

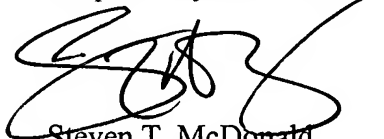
With regard to the claim 14 limitation of a voice firewall comprising “a voice communication port electrically connected to the processor, wherein the voice communication port is associated with the private connection address on a private side of the voice firewall and is associated with the public connection address on a public side of the voice firewall,” the Examiner alleges that Schuster describes such a voice communication port and cites Column 5, Lines 15-54 and Figure 1 of Schuster as allegedly describing such a voice firewall. Applicants respectfully disagree. Figure 1 and the accompany text of Schuster only describe a general network telephony system that includes various networks and network devices interconnected by network equipment such as routers and switches. Schuster generally describes network devices that have internal network addresses within a network that has an external address. However, Schuster is wholly silent with regard to a “voice firewall” that includes “a voice communication port electrically connected to the processor.” Additionally, the “processor” of the subject claim is explicitly recited as “configured to substitute a public connection address for a private connection address embedded within a data portion of the connection signal.” Neither Gbadegesin or Schuster describes such a processor, and thus Shuster also fails to describe “a voice communication port electrically connected to the processor” as the claimed processor configuration is not described or suggested by Gbadegesin or Schuster. For at least this reason, Gbadegesin and Shuster are insufficient to describe or suggest a voice firewall comprising “a voice communication port electrically connected to the processor, wherein the voice communication port is associated with the private connection address on a private side of the voice firewall and is associated with the public connection address on a public side of the voice firewall” and thus are insufficient to provide a prima facie case of obviousness with regard to the claim 14 limitations. Accordingly, Gbadegesin and Shuster fail to obviate claim 14.

Conclusion

It is clear from all of the foregoing that independent claims 1, 8, 14, 20, and 26 are in condition for allowance. Dependent claims 2-7, 9-13, 15-19, and 21-25 depend from and further limit independent claims 1, 8, 14, 20, and 26 therefore are allowable as well.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,



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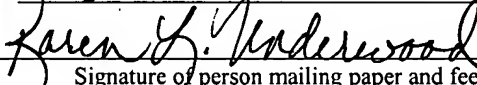
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